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What is claimed is:

1. An imager, comprising:
  - a semiconductor substrate;
  - a first photosensitive site located in the substrate and configured to receive light having a spectral component;
  - a second photosensitive site located in the substrate and configured to measure the level of a spectral component in light received by the second photosensitive site; and
  - an interpolator located in the substrate and configured to estimate the level of the spectral component in the light received by the first photosensitive site based on the measurement by the second photosensitive site.
2. The imager of claim 1, wherein the first photosensitive site comprises:
  - a pixel cell; and
  - a filter covering the pixel cell and configured to prevent the spectral component received by the first photosensitive site from striking the pixel cell.
3. The imager of claim 2 wherein the pixel cell comprises a charge coupled device.

4. The imager of claim 1 wherein the component comprises a primary color band.

5. The imager of claim 1, wherein the second photosensitive site comprises:

a pixel cell; and

a filter covering the pixel cell and configured to allow the spectral component to strike the pixel cell.

6. The imager of claim 1, wherein the first photosensitive site is further configured to measure the level of another spectral component in light received by the first photosensitive site, and the interpolator is further configured to estimate the level of the another spectral component in the light received by the second photosensitive site based on the measurement by the first photosensitive site.

7. The imager of claim 1 further comprising:  
a third photosensitive site located in the substrate and configured to measure the level of another spectral component in light received by the third photosensitive site, and wherein the first photosensitive site is further configured to receive light having the another spectral component, and

the interpolator is further configured to estimate the level of the spectral components in the light received by the first photosensitive site based on the measurements by the second and third photosensitive sites.

8. An imager, comprising:
  - a semiconductor substrate;
  - first photosensitive sites located in the substrate, each first photosensitive site configured to receive light having a spectral component;
  - second photosensitive sites located in the substrate, each second photosensitive site configured to measure the level of a spectral component in light received by the second photosensitive site; and
  - an interpolator located in the substrate and configured to estimate the level of the spectral component in the light received by at least one of the first photosensitive sites based on the measurements by the second photosensitive sites.

9. The imager of claim 8 wherein the interpolator comprises:

an averaging circuit configured to perform the estimation by averaging some of the measurements by the second photosensitive sites.

10. The imager of claim 9 wherein the interpolator further comprises:

a scaling circuit configured to scale the some of the measurements by predetermined coefficients before being averaged by the averaging circuit.

11. The imager of claim 10 wherein the scaling circuit is further programmable to change one or more of the coefficients.

12. The imager of claim 9 wherein the first and second photosensitive sites are part of an array.

13. The imager of claim 9 wherein the first and second photosensitive sites are located in a column of an array of photosensitive sites.

14. The imager of claim 9 wherein the first and second photosensitive sites are located in a row of an array of photosensitive sites.

15. The imager of claim 9 wherein the first and second photosensitive sites are arranged in a rectangular block.

16. A color imager for use with light having first, second and third primary color bands, comprising:

a semiconductor substrate;

first photosensitive sites located in the substrate, each first photosensitive site configured to receive a portion of the light and measure a level of the first primary color band in the portion of light received by the first photosensitive site;

second photosensitive sites located in the substrate, each second photosensitive site configured to receive a portion of the light and measure a level of the second primary color band in the portion of light received by the second photosensitive site;

third photosensitive sites located in the substrate, each third photosensitive site configured to receive a portion of the light and measure a level of the third primary color band in the portion of light received by the third photosensitive site; and

an interpolator configured to:

estimate the levels of the second and third primary color bands in the light received by the first photosensitive sites based on the measurements by the second and third photosensitive sites,

estimate the levels of the first and third primary color bands in the light received by the second

photosensitive sites based on the measurements by the first and third photosensitive sites, and

estimate the levels of the first and second primary color bands in the light received by the third photosensitive sites based on the measurements by the first and second photosensitive sites.

17. The color imager of claim 16 wherein the interpolator is further configured to furnish a representation of the levels of the first, second and third primary color bands for each of the first, second and third photosensitive sites.

18. The color imager of claim 17 wherein the representation for each site comprises a representation of the color of the light received by the site.

19. The color imager of claim 17 wherein the representation comprises a true color representation.

20. A method comprising:  
using a first photosensitive site located in a semiconductor substrate to receive light having a spectral component;

using a second photosensitive site located in the substrate to measure a level of the spectral component in light received by the second photosensitive site; and

using an interpolator located in the substrate to estimate the level of the spectral component in the light received by the first photosensitive site based on the measurement by the second photosensitive site.

21. The imager of claim 20 further comprising:

measuring a level of another spectral component in light received by the first photosensitive site, and

using the interpolator to estimate the level of the another spectral component in the light received by the second photosensitive site based on the measurement by the first photosensitive site.

22. The imager of claim 20 further comprising:

using a third photosensitive site located in the substrate to measure a level of another spectral component in light received by the third photosensitive site,

receiving light having the another spectral component at the first photosensitive site; and

using the interpolator to estimate the level of the spectral components in the light received by the first

photosensitive site based on the measurements by the second and third photosensitive sites.

23. A method comprising:

using first photosensitive sites located in a semiconductor substrate to receive light having a spectral component;

using second photosensitive sites located in the substrate to measure a level of the spectral component in light received by each of the second photosensitive sites; and

using an interpolator located in the substrate to estimate the level of the spectral component in the light received by at least one of the first photosensitive sites based on the measurements by the second photosensitive sites.

24. The method of claim 23, wherein the using the interpolator comprises:

averaging some of the measurements by the second photosensitive sites.

25. The imager of claim 24, wherein the using the interpolator further comprises:

3 scaling the some of the measurements by  
4 predetermined coefficients before the averaging.